IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1 and 3, CANCEL claims 5 and 12, and ADD claim 13 in accordance with the following:

1. (Currently Amended) A method for dicing a silicon wafer, in which a wafer having a plurality of electronic circuits formed at one side thereof is diced into individual semiconductor chips, the method comprising ~~the steps of~~:

coating the side of the wafer opposed to the side at which the plurality of electronic circuits are formed with a layer of a photosensitive resist,

exposing the photosensitive resist layer by irradiating it with a radiation capable of penetrating the wafer, at the side having the electronic circuits formed, and along the dicing lines for subsequently cutting the wafer for the dicing,

developing the photosensitive resist layer to thereby selectively remove the material at the exposed portions of the resist layer along the dicing lines, and

dicing the wafer by etching it at the side opposed to the side having the electronic circuits formed to cut the wafer along the dicing lines,

wherein the radiation irradiating the photosensitive resist layer is at least one of X-ray and infrared ray radiation.

2. (Original) The method of claim 1, wherein the wafer is diced by dry etching.

3. (Currently Amended) The method of claim 1, further comprising, after said ~~the step of~~ dicing the wafer, ~~the step of~~ removing the photosensitive resist layer from the wafer.

4. (Original) The method of claim 1, wherein the photosensitive resist layer is formed of a positive-type photosensitive material.

5. (Cancelled)

6. (Original) The method of claim 1, wherein the photosensitive resist layer is formed of a negative-type photosensitive material.

7. (Original) The method of claim 6, wherein the negative-type photosensitive material is an infrared-sensitive material.

8. (Original) The method of claim 1, wherein the wafer is irradiated with spot-like radiation, which is moved along the dicing line.

9. (Original) The method of claim 8, wherein for the irradiation with the spot-like radiation, a system comprising a camera for picking up images of normal visible light, a lighting means for emitting radiation penetrating through the wafer, a means for moving the camera, and a controlling unit for analyzing the image information from the camera and controlling the means for moving the camera, is used.

10. (Original) The method of claim 1, wherein the wafer is irradiated with a radially emitted radiation using a mask, so as to be exposed to the radiation passing through the mask along the dicing line.

11. (Original) The method of claim 10 wherein, for the irradiation with the radially emitted radiation, a system comprising a camera for picking up images of normal visible light, a lighting means for radially emitting radiation penetrating through the wafer, a mask member having a pattern to selectively expose the photosensitive resist layer to the radiation, and a controlling unit for analyzing the image information from the camera and controlling the movement of the mask to position it in place.

12. (Cancelled)

13. (New) A method for preparing a wafer having a plurality of electronic circuits formed at one side thereof for dicing into individual semiconductor chips, the method comprising the steps of:

coating the side of the wafer opposed to the side at which the plurality of

electronic circuits are formed with a layer of a photosensitive resist;

exposing the photosensitive resist layer by irradiating it with a radiation capable of penetrating the wafer, at the side having the electronic circuits formed, and along dicing lines for subsequently cutting the wafer for the dicing; and

developing the photosensitive resist layer to thereby selectively remove the material at the exposed portions of the resist layer along the dicing lines.